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Amendments to the claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of claims:

Claim 1 (currently amended): A pixel defect detector for a solid-state imaging device comprising a plurality of photoelectric transducers, the pixel defect detector comprising:

a calculation section for obtaining output characteristics of a subject photoelectric transducer for varied amounts of light incident thereupon so as to determine the presence/absence of a defect in the subject photoelectric transducer based on the output characteristics thereof, wherein

an output corresponding to a non-defective photoelectric transducer is calculated based on outputs from a plurality of photoelectric transducers neighboring the subject photoelectric transducer for at least one of the amounts of incident light without requiring specific amounts of incident light, and

the calculated output corresponding to a non-defective transducer is used in determining the presence/absence of a defect in the subject photoelectric transducer.

~~the neighboring photoelectric transducers comprise only those which display the same one of a plurality of colors to be displayed as that of the subject photoelectric transducer.~~

Claim 2 (original): A pixel defect detector for a solid-state imaging device according to claim 1, wherein:

the pixel defect detector further comprises a picture memory for storing an output signal from the photoelectric transducer; and

the calculation section determines the output characteristics of the subject photoelectric transducer using the output signal of the subject photoelectric transducer stored in the picture memory.

Claim 3 (original): A pixel defect detector for a solid-state imaging device according to claim 1, wherein:

the output characteristics of the subject photoelectric transducer are represented by a plurality of output signals of the subject photoelectric transducer in response to different amounts of light incident thereupon, respectively.

Claim 4 (currently amended): A pixel defect detector for a solid-state imaging device comprising a plurality of photoelectric transducers, the pixel defect detector comprising:

a picture memory for storing outputs from a subject photoelectric transducer in response to different amounts of light incident thereupon, respectively; and

a calculation section for determining a photoelectric coefficient **a** of the subject photoelectric transducer and an offset output level **b** of the subject photoelectric transducer in the absence of incident light based on the amounts of incident light, the outputs from the subject photoelectric transducer therefor, and Expression (1) below, so as to compare the photoelectric coefficient **a** and the offset output level **b** with a predetermined reference photoelectric coefficient a_o and predetermined reference offset output level b_o, respectively, thereby determining the presence/absence of a defect in the subject photoelectric transducer:

$$y(x) = ax+b \quad \ldots (1)$$

where y(x) denotes the output of the subject photoelectric transducer, and x denotes the amount of incident light, wherein

an output corresponding to a non-defective photoelectric transducer is calculated based on outputs from a plurality of photoelectric transducers neighboring the subject photoelectric transducer for at least one of the amounts of incident light without requiring specific amounts of incident light, and

the calculated output corresponding to a non-defective transducer is used in determining the presence/absence of a defect in the subject photoelectric transducer.

~~the neighboring photoelectric transducers comprise only those which display the same one of a plurality of colors to be displayed as that of the subject photoelectric transducer.~~

Claim 5 (original): A pixel defect detector for a solid-state imaging device according to claim 1, wherein:

the pixel defect detector further comprises an optical system for projecting a picture onto the solid-state imaging device; and

the output of the photoelectric transducer is determined while the optical system is defocused with respect to the solid-state imaging device.

Claim 6 (original): A pixel defect detector for a solid-state imaging device according to claim 4, wherein:

the pixel defect detector further comprises an optical system for projecting a picture onto the solid-state imaging device; and

the output of the photoelectric transducer is determined while the optical system is defocused with respect to the solid-state imaging device.

Claim 7 (original): A pixel defect detector for a solid-state imaging device according to claim 1, wherein:

the amounts of light incident upon the subject photoelectric transducer comprise an amount of incident light when no light is incident upon the solid-state imaging device and another amount of incident light which brings the solid-state imaging device to a near-overflow state.

Claim 8 (original): A pixel defect detector for a solid-state imaging device according to claim 4, wherein:

the amounts of light incident upon the subject photoelectric transducer comprise an amount of incident light when no light is incident upon the solid-state imaging device and another amount of incident light which brings the solid-state imaging device to a near-overflow state.

Claim 9 (original): A pixel defect detector for a solid-state imaging device according to claim 4, wherein:

the amount of incident light x is determined by applying, to Expression (2) below, the predetermined reference photoelectric coefficient a_o, the predetermined reference offset output level b_o, and a reference output signal y_o:

$$x = (y_o - b_o) / a_o \quad \text{... (2).}$$

Claim 10 (previously presented): A pixel defect detector for a solid-state imaging device comprising a plurality of photoelectric transducers, the pixel defect detector comprising:

a picture memory for storing outputs from a subject photoelectric transducer in response to different amounts of light incident thereupon, respectively; and

a calculation section for determining a photoelectric coefficient **a** of the subject photoelectric transducer and an offset output level **b** of the subject photoelectric transducer in the absence of incident light based on the amounts of incident light, the outputs from the subject photoelectric transducer therefor, and Expression (1) below, so as to compare the photoelectric coefficient **a** and the offset output level **b** with a predetermined reference photoelectric coefficient a_o and predetermined reference offset output level b_o, respectively, thereby determining the presence/absence of a defect in the subject photoelectric transducer:

$$y(x) = ax+b \quad \text{... (1)}$$

where y(x) denotes the output of the subject photoelectric transducer, and x denotes the amount of incident light, wherein

an output corresponding to a non-defective photoelectric transducer is calculated based on outputs from a plurality of photoelectric transducers neighboring the subject photoelectric transducer for at least one of the amounts of incident light,

the amount of incident light x is determined by applying, to Expression (2) below, the predetermined reference photoelectric coefficient a_o, the predetermined reference offset output level b_o, and a reference output signal y_o:

$$x = (y_o - b_o) / a_o \quad \text{... (2), and}$$

the output y_o is set to a median among outputs from the plurality of photoelectric transducers neighboring the subject photoelectric transducer.

Claim 11 (original): A pixel defect detector for a solid-state imaging device according to claim 10, wherein:

the neighboring photoelectric transducers comprise only those which display the same one of a plurality of colors to be displayed as that of the subject photoelectric transducer.

Claim 12 (previously presented): A pixel defect detector for a solid-state imaging device comprising a plurality of photoelectric transducers, the pixel defect detector comprising:

a picture memory for storing outputs from a subject photoelectric transducer in response to different amounts of light incident thereupon, respectively; and

a calculation section for determining a photoelectric coefficient **a** of the subject photoelectric transducer and an offset output level **b** of the subject photoelectric transducer in the absence of incident light based on the amounts of incident light, the outputs from the subject photoelectric transducer therefor, and Expression (1) below, so as to compare the photoelectric coefficient **a** and the offset output level **b** with a predetermined reference photoelectric coefficient a_o and predetermined reference offset output level b_o, respectively, thereby determining the presence/absence of a defect in the subject photoelectric transducer:

$$y(x) = ax+b \quad \ldots (1)$$

where y(x) denotes the output of the subject photoelectric transducer, and x denotes the amount of incident light, wherein

an output corresponding to a non-defective photoelectric transducer is calculated based on outputs from a plurality of photoelectric transducers neighboring the subject photoelectric transducer for at least one of the amounts of incident light, and

the presence/absence of a defect in the subject photoelectric transducer is determined by applying the photoelectric coefficient **a** of the subject photoelectric transducer, the offset output level **b** of the subject photoelectric transducer, the reference photoelectric coefficient a_o, and the reference offset output level b_o, to Expression (3) below:

$$\text{no defect, if } |a_o-a| < \Delta a \text{ and } |b_o-b| < \Delta b \quad \ldots (3)$$

where Δa and Δb are predetermined threshold values.

Claim 13 (previously presented): A pixel defect detector for a solid-state imaging device comprising a plurality of photoelectric transducers, the pixel defect detector comprising:

a picture memory for storing outputs from a subject photoelectric transducer in response to different amounts of light incident thereupon, respectively; and

a calculation section for determining a photoelectric coefficient **a** of the subject photoelectric transducer and an offset output level **b** of the subject photoelectric transducer in the absence of incident light based on the amounts of incident light, the outputs from the subject photoelectric transducer therefor, and Expression (1) below, so as to compare the photoelectric coefficient **a** and the offset output level **b** with a predetermined reference photoelectric coefficient a_0 and predetermined reference offset output level b_0, respectively, thereby determining the presence/absence of a defect in the subject photoelectric transducer:

$$y(x) = ax+b \quad \ldots (1)$$

where y(x) denotes the output of the subject photoelectric transducer, and x denotes the amount of incident light, wherein

an output corresponding to a non-defective photoelectric transducer is calculated based on outputs from a plurality of photoelectric transducers neighboring the subject photoelectric transducer for at least one of the amounts of incident light, and

the presence/absence and the type of defect in the subject photoelectric transducer are determined by applying the photoelectric coefficient **a** of the subject photoelectric transducer, the offset output level **b** of the subject photoelectric transducer, the reference photoelectric coefficient a_0, and the reference offset output level b_0, to Expression (4) below:

no defect, if $|a_0-a|<\Delta a$ and $|b_0-b|<\Delta b$;

a black blemish, if $|a_0-a|\geq\Delta a$; and

a white blemish, if $|b_0-b|\geq\Delta b$ ... (4)

where Δa and Δb are predetermined threshold values.

Claim 14 (original): A pixel defect detector for a solid-state imaging device according to claim 12, wherein:

the reference photoelectric coefficient a_0 and the reference offset output level b_0 are prescribed for each of the colors to be displayed.

Claim 15 (original): A pixel defect detector for a solid-state imaging device according to claim 13, wherein:

the reference photoelectric coefficient a_o and the reference offset output level b_o are prescribed for each of the colors to be displayed.

Claim 16 (original): A pixel defect detector for a solid-state imaging device according to claim 12, wherein:

the pixel defect detector further comprises a determination section for determining a color to be displayed by the subject photoelectric transducer based on address data of the subject photoelectric transducer; and

the reference photoelectric coefficient a_o and the reference offset output level b_o are prescribed based on the determination by the determination section.

Claim 17 (original): A pixel defect detector for a solid-state imaging device according to claim 13, wherein:

the pixel defect detector further comprises a determination section for determining a color to be displayed by the subject photoelectric transducer based on address data of the subject photoelectric transducer; and

the reference photoelectric coefficient a_o and the reference offset output level b_o are prescribed based on the determination by the determination section.

Claim 18 (new): A pixel defect detector for a solid-state imaging device according to claim 4, wherein N amounts of incident light $x_o, x_1, x_2, \ldots, x_{n-1}$ of the subject pixel to be examined and the actual output levels $y_o, y_1, y_2, \ldots, y_{n-1}$ of the subject pixel to be examined, obtained respectively for each of the N amounts of incident light are substituted into the following expression (7)

$$\begin{bmatrix} \sum x_i^2 & \sum x_i \\ \sum x_i & N \end{bmatrix} \begin{bmatrix} a \\ b \end{bmatrix} - \begin{bmatrix} \sum x_i y_i \\ \sum y_i \end{bmatrix} \qquad \ldots (7)$$

to find a photoelectric coefficient a and an offset output level b of the subject pixel to be examined.

Claim 19 (new): A pixel defect detector for a solid-state imaging device according to claim 10, wherein N amounts of incident light $x_0, x_1, x_2, \ldots, x_{n-1}$ of the subject pixel to be examined and the actual output levels $y_0, y_1, y_2, \ldots, y_{n-1}$ of the subject pixel to be examined, obtained respectively for each of the N amounts of incident light are substituted into the following expression (7)

$$\begin{bmatrix} \sum x_i^2 & \sum x_i \\ \sum x_i & N \end{bmatrix} \begin{bmatrix} a \\ b \end{bmatrix} - \begin{bmatrix} \sum x_i y_i \\ \sum y_i \end{bmatrix} \quad \ldots (7)$$

to find a photoelectric coefficient a and an offset output level b of the subject pixel to be examined.